ABSTRACT OF THE DISCLOSURE

A four-wheel vehicle is equipped with rotational speed sensors S1-S4 that detect a rotational speed V1 of a left front wheel T1, a rotational speed V2 of a right front wheel T2, a rotational speed V3 of a left rear wheel T3 and a rotational speed V4 of a right rear wheel T4, respectively, and a yaw rate sensor Sγ that detects a yaw rate of the vehicle. An underinflation detector 1 includes a controller 2 that calculates a front-wheel yaw rate γF derived from a difference in rotational speed between the front wheels T1, T2, a rear-wheel yaw rate γR derived from a difference in rotational speed between the rear wheels T3, T4, and deviations of the yaw rates γF, γR from an actually measured value output from the yaw rate sensor Sγ. A rate of change of the deviation with respect to change of vehicle speed is determined to thereby detect insufficiency of inflation pressure of tires with high reliability. Utilizing this underinflation detector 1, the outputs of the yaw rate sensor Sγ can be corrected.